



US006304855B1

(12) **United States Patent**  
**Burke**(10) **Patent No.:** **US 6,304,855 B1**(45) **Date of Patent:** **\*Oct. 16, 2001**(54) **COMPUTER SYSTEM FOR ALLOWING A  
CONSUMER TO PURCHASE PACKAGED  
GOODS AT HOME**5,848,399 \* 12/1998 Burke ..... 705/27  
5,930,769 \* 7/1999 Rose ..... 705/27  
6,026,377 \* 2/2000 Burke ..... 705/27(76) **Inventor:** **Raymond R. Burke**, 1700 N. Russell  
Rd., Bloomington, IN (US) 47408**FOREIGN PATENT DOCUMENTS**

40-3149696-A \* 6/1991 (JP) .

(\*) **Notice:** Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.**OTHER PUBLICATIONS**O'Connor—"Data Superhighway Revolution Will Be Tele-  
vised . . . Later", San Jose Mercury News, Business Section,  
Thursday, Jun. 24, 1993, p. 1E.\*This patent is subject to a terminal dis-  
claimer.

\* cited by examiner

(21) **Appl. No.:** **09/457,067****Primary Examiner**—Joseph Thomas  
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P.C.(22) **Filed:** **Dec. 7, 1999**(57) **ABSTRACT****Related U.S. Application Data**(63) Continuation of application No. 09/205,882, filed on Dec. 4,  
1998, now Pat. No. 6,026,377, which is a continuation of  
application No. 08/686,755, filed on Jul. 25, 1996, now Pat.  
No. 5,848,399, which is a continuation of application No.  
08/159,335, filed on Nov. 30, 1993, now abandoned.

A system for generating images representative of a store  
shelf includes a retail space management system for gener-  
ating information describing product and shelf sizes and  
locations in three dimensions, and including a code which is  
unique to each product. The products are typically commod-  
ity goods. A product database is used to store images of  
product packages which are accessible using codes unique to  
each product. A three-dimensional modeling and display  
system which takes size and location information from the  
retail space management system and generates three-  
dimensional models of each shelf and product and accesses  
the product database using the codes provided by the retail  
space management system to obtain images for each prod-  
uct. It generates a display of each product on each shelf by  
combining the obtained images and the generated three-  
dimensional models. The consumer may manipulate the  
display to change what is being viewed, to examine product  
packages and to purchase products.

(51) **Int. Cl.**<sup>7</sup> ..... **G06F 17/60; H04N 7/173;**  
**G06K 15/00**  
(52) **U.S. Cl.** ..... **705/27; 705/28; 235/383;**  
**235/385; 345/419; 345/429; 345/433**  
(58) **Field of Search** ..... **705/27, 26, 28;**  
**235/383, 385, 375, 378, 376; 345/419,**  
**425, 429, 433, 427, 352, 353, 335, 962,**  
**964; 348/12, 13**(56) **References Cited****U.S. PATENT DOCUMENTS**5,515,268 \* 5/1996 Yoda ..... 705/26  
5,754,938 \* 5/1998 Herz et al. .... 725/116**56 Claims, 18 Drawing Sheets**